

Chondromalacia and Patellofemoral Syndrome

Patellofemoral Syndrome (Runner's Knee) is generalized knee pain. Generally caused by improper running form over a period of time and may or may not be due to a pathological condition of chondromalacia.

Chondromalacia is the wearing away of the cartilage on the back surface of the kneecap, manifested as a "clicking" or "grating" sound, and knee pain under the patella (kneecap).

Plantar Fasciitis and Neuromas

Plantar fasciitis is literally an inflammation of the plantar fascia, a web of tough, fibrous connective tissue on the bottom of the foot.

Neuromas are irritated nerve endings, but can cause pain in the foot (or other places, depending on the nerve in question).

Either condition could be caused by poor technique or simple overuse but should be examined by a physician to determine the cause. In the problem is orthopedic in nature, orthotic shoe inserts may be prescribed by a medical professional to alleviate future problems.

Tendonitis, Arthritis, Bursitis

Tendonitis (inflammation of a tendon) and Bursitis (inflammation of the fluid filled cushioning sacs between tendons and bones) are common overuse injuries. Rehabilitation requires rest and the attention of a physician.

Osteoarthritis is caused by worn joint cartilage thereby exposing the joint surfaces swelling and edema (fluid buildup). Rheumatoid arthritis is an autoimmune disorder in which the body's immune system attacks joint tissues.

Shin Splints and Compartment Syndromes

Shin Splints are a common name for pain felt in the anterior portion of the lower leg and can be caused by a muscle imbalance. Shin Splints require rest, ice, compression and elevation (RICE) and strengthening exercises to prevent future occurrences.

Pain can also be caused by a more serious condition known as a compartment syndrome where one of the compartments between the muscles becomes inflamed

and swollen, which stresses the blood vessels and nerves in the area. This situation requires immediate medical attention.



Breathing Reactions

Exercise reactions, range from red blotchiness on the neck, face, or arms (urticaria), to exercise-induced asthma or bronchospasm, or even anaphylaxis. Exercise-induced Anaphylaxis is a severe allergic reaction requiring immediate medical attention. A Physician may prescribe carrying a bee-sting kit as treatment.

Exercise-induced asthma may be triggered by exercising in cold, dusty, or excessively humid environments, and can range in severity from mild coughing to severe discomfort. Individuals who suspect that they have exercise-induced asthma are encouraged to seek medical attention.

General recommendations for persons with exercise-induced asthma include an extended warm-up, avoidance of cold, dusty, or extremely humid environments for exercise. A physician may recommend an inhaler.

Hyperventilation is the process of repeated quick and shallow breaths utilizing the top of the chest. This sharply reduces the level of carbon dioxide in the blood, which causes the arteries in the body to constrict thereby reducing the flow of blood throughout the body. This includes the carotid artery to the brain. Lack of blood flow, and subsequently oxygen, trigger the sympathetic nervous system. This may cause the anxiety and irritability.

Hyperventilation can be caused by anxiety, extensive physical injuries or even heart or lung disease. It is important to keep the victim calm. Have everyone step back and give them some "breathing room". A crowd can increase the anxiety level for the victim.

Hyperventilation Procedure:

- Cover the nose and mouth with a small paper bag
- Breathe slowly and rebreath bagged air about 10 times
- Then breathe normally for a few minutes, about one breath every 5 seconds
- Repeat above if symptoms persist.
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